A NEW SPECIES OF *POLIOMINTHA* (LAMIACEAE) FROM THE CHIHUAHUAN DESERT REGION

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Irving recently published revisions of *Poliomintha* Gray (Irving, 1979) and the closely related *Hedeoma* (Irving, 1980). In both he discusses the close generic relationships of the two genera and with nine other genera of subtribe Melissinae. Within this complex, the new taxon best fits within the genus *Poliomintha* section *Saturejoides* Irving but has certain characters unique to this section and the genus.

POLIOMINTHA **maderensis** Henrickson sp. nov.

P. longiflora simulans sed pilis caulium firmis retrorsis (non antrosi-arcuatis), corollis lavandulaceis non aurantiaco-rubris; *P. glabrescens* accedens sed corollis longioribus, floribus solitaris axillaribus (non dichasio-cymosis); a *P. longiflora* et *P. glabrescens calycibus 1 mm sub orificiis annulatis pilis annuli rectis firmis, foliis juvenilibus dense strigosis pilis dendriticis caducis differt.*

Small shrubs 2.5 dm tall on exposed limestone rocky banks; stems slender, moderately branched, ascending-erect; young stems 4-angled, tan, purple at nodes, retrorsely strigulose with bent hairs 0.1–0.2 mm long, gland-dotted. Leaves opposite, with often purplish petioles 1 mm long; leaf-blades oblong-oblanceolate, 8–13(-18.5) mm long, 2.5–5 mm wide, acute to obtuse-rounded at tip, cuneate at base, primordial leaves densely vestitured with bent and irregularly forked-dendritic, white hairs 0.2–0.4 mm long, these soon glabrate, the cells whitish, thickish, hollow; mature leaves thickish, glabrate except for scattered antrorse appresed hairs along margins, with sessile glands 0.1 mm wide on both surfaces, green above, more glaucous beneath, midvein whitish beneath, lateral veins not apparent. Flowers solitary in upper leaf-axils, peduncles 1–2 mm long, pedicels 2 mm long, bracts linear-spathulate 2.5–4 mm long, 0.4 mm wide, leafy; calyx tubular 10–10.5 mm long, veins 13, obscure, tube 8.5–9.5 mm long, strigulose and gland-dotted as leaves, lobes 5, 2–2.5 mm long, lanceolate, acute, straight, closing together after corollas fall, sericeous inside with antrorse, white hairs 0.3 mm long, tube with distinct annulus of subsetose, straight hairs 0.8–1 mm long in ring 1 mm below tube orifice, otherwise glabrous inside, corolla purplish, 30–35 mm long, tube slender, ca 8 mm long, throat slightly ampliate; lips straight, ca 7 mm long; upper lip ovate, emarginate, 5 mm wide, lower lip 3-lobed, lobes rounded, lateral lobes somewhat divergent, outer corolla surface villous with hairs 0.7–1.5 mm long, villous inside for ca 4 mm in tube; fertile

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stamens 2, slightly exserted, adnate to mid throat, sterile stamens consisting of filaments ca 0.5 mm long; style 34 mm long, exserted. Fruit unknown. Fig. 1.

TYPE: MEXICO. COAHUILA: ca 36 (air) km WNW of Cuatro Cienegas along south-facing limestone crest of Sierra de la Madera, above Cayon de la Hacienda at margin of pine forest with *Stevia, Petrophytum, Nolina, Abelia, Quercus, Pinus*, and *Salvia*. Frequent shrub, fls. purple. Near 27°03′ N Lat., 102°24′ W Long. 2600 m. 27 Sep 1973. *J. Henrickson 13604*. (HOLOTYPE: LL; ISOTYPES: MEXU, TEX).

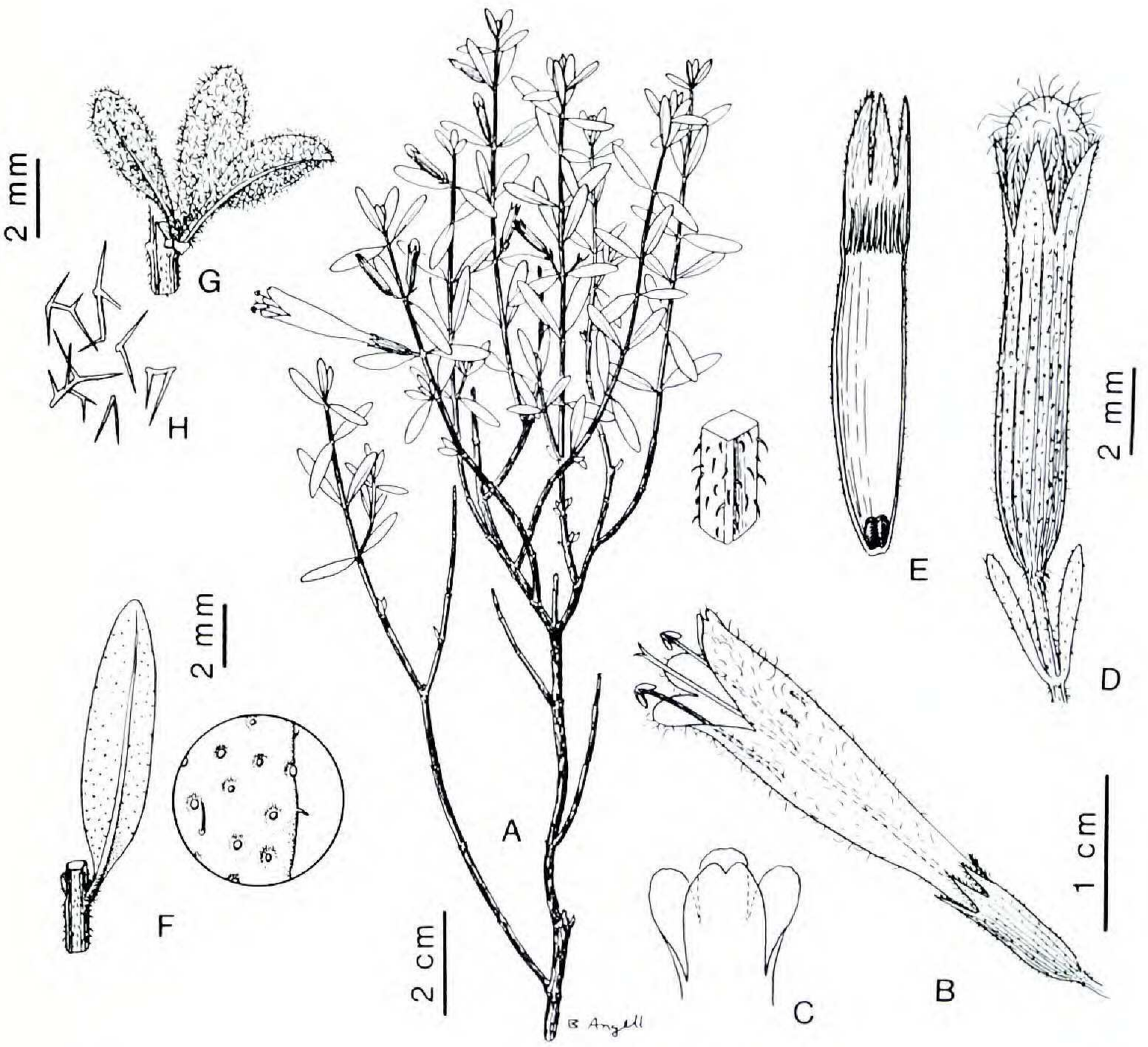

Fig. 1. *Poliomintha maderensis* Henrickson. A. Habit showing location of flowers. B. Flower showing exserted anterior anthers, and two posterior sterile stamens are represented by short filaments shown inside corolla. C. Top view of corolla tip showing emarginate posterior lip and 3-lobed anterior lip. D. mature bud showing emergent corolla, calyx and subtending bracts, pedicel. E. Longitudinal section of post-flowering calyx showing basal ovaries, interior annulus of subsetose hairs below lobes. F. Leaf with magnified area showing sessile glands, scattered trichomes. G. Developing leaves with dense vestiture of dendritically branched trichomes shown in H. All from *Henrickson 13604*, LL, TEX.

Additional collection: MEXICO. COAHUILA: Sierra de la Madera, summit Anteojo complex, w. of Cuatro Cienegas. 10 Aug 1970. *E. Meyer s.n.* (ASU).

The new species is most similar to *Poliomintha longiflora* Gray and *P. glabrescens* Gray of section *Saturejoides* for it shares with them a shrubby habit, glabrescent vestiture, elliptical leaf shape and long cinereous, 13-veined calyxes as well as broad lanceolate, tapering (not acuminate), erect calyx lobes that close over the calyx-orifice after the corolla falls. It differs from all species of the genus, however, in its well defined internal calyx-annulus of straight antrorse hairs in the upper tube below, not at, the calyx orifice and by the presence of coarse forked-dendritic to bent, soon deciduous hairs on the newly developing leaves. Similar hairs occur in developing leaves of *P. glabrescens* but they are simple, not forked or dendritic hairs. A well developed calyx annulus and dendritic hairs also occur in certain species of *Hedeoma* and *Hesperozygis*. At the species level the new species is similar to *P. longiflora* in its long corolla, mostly solitary flowers in each upper leaf axil, but differs in the more glabrescent leaves, and retrorse strigulose hairs on the stems (not curled, mostly antrorse hairs) and larger sessile glands 0.1 (not 0.06) mm wide, and purple (not orange-red) corollas. Stem- and leaf-vestiture and leaf-texture are more like those in *P. glabrescens*. However, this latter species has shorter, lavender corollas, flowers aggregated in simple to compound dichasial cymes of (1-)3–6(-13) flowers in each upper leaf axil.

The new species is known only from the exposed cliffs along the crest of the Sierra de la Madera above the pine-fir forest (Pinkava, 1979, 1981) associated with *Abelia coriacea, Comarostaphylis polifolia* ssp. *coahuilensis, Spiraea northcraftii, Echinocactus capricornis, Petrophytum caespitosum, Cercocarpus montanus* var. *paucidentatus, Pinus cembroides, Nolina cespitifera*, and *Quercus greggii. Poliomintha glabrescens* occurs at lower elevations in the same range. *Poliomintha longiflora* occurs much further to the south in an area near Saltillo, Coahuila and in central and northeastern Zacatecas.

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